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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/692,470      | 10/22/2003  | Hideshi Sakamoto     | JCLA12417           | 9116             |

23900 7590 01/17/2006

J C PATENTS, INC.  
4 VENTURE, SUITE 250  
IRVINE, CA 92618

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| EXAMINER |
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FORTUNA, ANA M

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1723

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/692,470

Applicant(s)

SAKAMOTO ET AL.

Examiner

Ana M. Fortuna

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-17 is/are allowed.
- 6) ☒ Claim(s) 1 and 4-7 is/are rejected.
- 7) ☒ Claim(s) 2-3, 9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/22/03</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funaoka et al (US 6,824,865) (hereinafter patent '825) in view of Okayama et al (US 6,300,415) (hereinafter patent '415).

Patent '865 discloses a polyolefin membrane comprising of a mixture of crystalline polypropylene and propylene- ethylene copolymer (abstract, column 2, lines 48-68, column 3, lines 1'-24). The membrane composition as discussed in the sections above include a component A) or polyolefin that can be selected to be propylene ((column 4, lines 38-53); and the component B) can be selected as copolymers of propylene and ethylene (see column 3, lines 20-25, lines 42-48). The percentages of polypropylene and alpha-olefin copolymer are also disclosed within the claimed ranges (see column 3, last paragraph, bridging column 4, lines 1-64). The membrane is made by melting kneading the resin composition to form microporous membrane.

Patent '865 fails to disclose the membrane consisting of the specific composition as claimed, however, alpha-olefin copolymers propylene and ethylene are disclosed, with the percentage of ethylene of 1 weight %, and from 5 to 30% weight of propylene, a total polyolefin content in the membrane solution of 10 to 50 weight percent (column 6, last paragraph, bridging column 7, lines 1-20). The exact composition ranges, and the

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pore formation in the region consisting of the copolymer (B) (propylene alpha-olefin) are not disclosed in '865.

Okayama et al (patent '415) teach a composition made from polypropylene homopolymer and propylene-ethylene copolymer (A) and (B) as claimed in claim 1 (abstract, column 4, lines 20-68, column 5, lines 1-27); the use of the composition for making films with excellent mechanical properties, and high strength is disclosed in '415 (see column 5, lines 50-90, column 13, lines 41-44); formation of stretched products is also suggested (see column 15, lines 61-65); and molding the film by extrusion is further disclosed (column 39, second paragraph). It would have been obvious to one skilled in this art at the time the invention was made to modify the membrane of '865, by incorporating the composition of patent '415, e.g. to provide a high strength and tear resistance product or film by extrusion, and further produce a desired pore size by stretching the film as required for a desired pore structure and membrane porosity, as suggested in patent '865 (column 7, lines 51-68). The pore formation of the process in the region of the copolymer is inherent of the molecular arrangement of the composition including the propylene and propylene-ethylene copolymer (ethylene-propylene copolymer) polymer composition, as suggested in patent '415, which includes the composition and ranges as claimed in claim 1.

As to claim 8 the polymer production steps are disclosed in patent '415 (column 7, lines 20-65, column 8, lines 19, though column 9, lines 1-20).

***Allowable Subject Matter***

3. Claims 11-17 allowed.
4. Claims 2-3, and 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter: the specific process conditions of the claims above are not suggested by the prior art of record. The membrane structure that can be generated by the draft ratio ranges, and properties as claimed in claims 9-10, are not disclosed or suggested in the prior art of record.

***Conclusion***

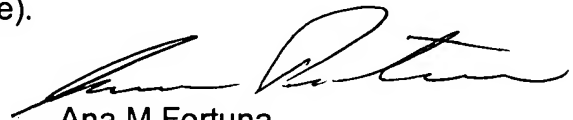
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Additionally cited prior art in form 892 teaches membrane made from polypropylene and polyethylene-polypropylene alpha olefin, and polypropylene alpha olefin or alpha olefin oligomers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana M. Fortuna whose telephone number is (571) 272-1141. The examiner can normally be reached on 9:30-6:00 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ana M Fortuna  
Primary Examiner  
Art Unit 1723

AF  
January 11, 2006